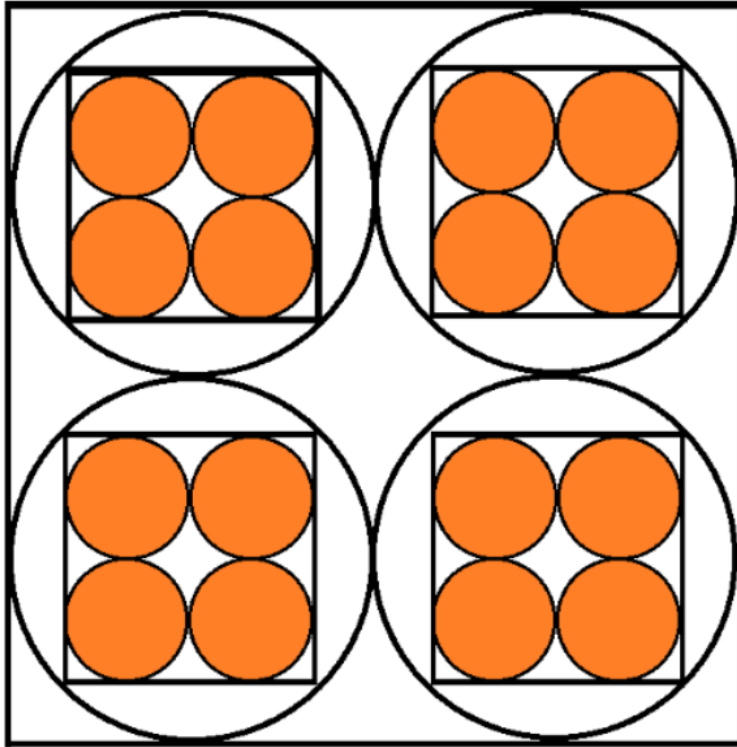


Geometric sense of Pi/8.



$$\frac{16A_{\text{small circle}}}{A_{\text{square}}} = \frac{16\pi r^2}{a^2} = \frac{16\pi \left(\frac{a}{8\sqrt{2}}\right)^2}{a^2} = \frac{\pi}{8}.$$